

The National Aerospace Initiative

On December 17, 1903, two ingenious Americans, Orville and Wilbur Wright, first achieved sustained, powered flight in a heavier-than-air craft.



As we prepare a Centennial of Flight Celebration to honor this epochal accomplishment, Americans must recognize their security, economic growth, quality of life, and scientific achievements now depend on, and benefit from, the countless number of aerospace products and services we enjoy as a nation. From worldwide news reports, to cell phones, to weather tracking, to farming, aerospace affects every corner of our lives.

Yet, as far as we have come, we have only begun to realize the potential of flight. It is time to begin the next era of aerospace.

The National Aerospace Initiative (NAI) is designed to renew American aerospace leadership in the 21st century. NAI will boldly push the space frontier further and faster with breakthrough aerospace technologies, revitalizing our critical aerospace industry, stimulating science and engineering in our classrooms, and enhancing our security, economy, and quality of life.

Step into the future . . .

<http://www.dod.mil/ddre/nai>

The National Aerospace Initiative is a partnership between the Department of Defense and NASA designed to sustain our aerospace leadership through technology development and demonstrations in three critical areas:

High Speed/Hypersonics

Space Access

Space Technology

For more information go to:

<http://www.dod.mil/ddre/nai>

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National Aerospace Initiative



**Sustaining American
Aerospace Leadership**

NATIONAL AEROSPACE INITIATIVE (NAI)

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High Speed/Hypersonics

In today's time critical world of rapidly evolving security threats and global economic competitiveness, speed will transform the way we achieve our objectives for national security, economic growth, and quality of life in the 21st Century.

For our national security, speed dramatically transforms the theater of operations—from reconnaissance to long range strike to missile defense. For example, hypersonic military aircraft will provide near instant information about an adversary's activities, deterring potential threats and providing the opportunity to strike tactical targets at strategic distances.

Speed will also transform the way we live and conduct business. Imagine express package delivery within hours to anywhere in the world. Imagine intercontinental business travel faster than today's domestic flights. Imagine the power of speed.

Flight demonstrate increasing Mach number per year reaching Mach 12 by 2012



Space Access

Reliable, responsive, and low-cost space access will open a dramatic new era of human exploration and commercial use of space.

Responsive space access will provide the critical ability to quickly launch resources for a full range of space-based military activities to ensure national security. Reliable and low-cost space access will also ensure routine travel to the International Space Station and expand the nation's ability to conduct scientific and exploratory missions.

For the U.S. aerospace industry, low-cost launch technologies will support economic competitiveness and growth, regaining leadership in space launch markets, and opening new space-based opportunities such as space solar power.

In the near term, NAI's focus will be on long-life rocket engines; longer term, NAI will incorporate hypersonic propulsion to create a new era of reusable launch vehicles.

Demonstrate technologies to dramatically increase space access and reliability while decreasing costs



Space Technology

Revolutionary space technologies, launched into space by our reliable, responsive and low-cost space access vehicles, will make our world safer, cleaner, and more prosperous.

Satellite systems will form the backbone of a new networked world where space, air, and ground assets are seamlessly integrated to provide revolutionary new capabilities. On-demand intelligence, surveillance, and reconnaissance will provide our decision makers with the most current information, allowing them to make the right decisions at the right time, ensuring our national security.

Scientific study of the Earth and its response to natural and human-induced changes will lead to unprecedented capabilities to predict climate, weather, and natural hazards. This new era of space will energize student interest in science and engineering, ensuring future generations of aerospace innovators and leaders.

Leverage the full potential of space

